

# Claims

- [c1] A smartcard transaction system configured with a biometric security system, said system comprising:
  - a smartcard configured to communicate with a reader;
  - a reader configured to communicate with said system;
  - a fingerprint sensor configured to detect a proffered fingerprint sample, said fingerprint sensor configured to communicate with said system; and,
  - a device configured to verify said proffered fingerprint sample to facilitate a transaction.
- [c2] The smartcard transaction system of claim 1, wherein said sensor is configured to communicate with said system via at least one of a smartcard, a reader, and a network.
- [c3] The smartcard transaction system of claim 1, wherein said fingerprint sensor is configured to facilitate a finite number of scans.
- [c4] The smartcard transaction system of claim 1, wherein said fingerprint sensor is configured to log at least one of a detected fingerprint sample, processed fingerprint sample and stored fingerprint sample.

- [c5] The smartcard transaction system of claim 1, further including a database configured to store at least one data packet, wherein said data packet includes at least one of proffered and registered fingerprint samples, proffered and registered user information, terrorist information, and criminal information.
- [c6] The smartcard transaction system of claim 5, wherein said database is contained in at least one of the smartcard, smartcard reader, sensor, remote server, merchant server and smartcard system.
- [c7] The smartcard transaction system of claim 6, wherein said remote database is configured to be operated by an authorized sample receiver.
- [c8] The smartcard transaction system of claim 1, wherein said fingerprint sensor device is configured with at least one of an optical scanner and capacitance scanner.
- [c9] The smartcard transaction system of claim 1, wherein said fingerprint sensor device is configured to detect and verify finger print minutia including at least one of ridge endings, bifurcation, lakes, enclosures, short ridges, dots, spurs, crossovers, pore size, pore location, loops, whorls, and arches.

- [c10] The smartcard transaction system of claim 1, wherein said fingerprint sensor device is configured to detect and verify blood flow, correctly aligned ridges, pupil dilation, pressure, motion, and body heat.
- [c11] The smartcard transaction system of claim 1, further including a device configured to compare a proffered fingerprint sample with a stored fingerprint sample.
- [c12] The smartcard transaction system of claim 11, wherein said device configured to compare a fingerprint sample is at least one of a third-party security vendor device and local CPU.
- [c13] The smartcard transaction system of claim 11, wherein a stored fingerprint sample comprises a registered fingerprint sample.
- [c14] The smartcard transaction system of claim 13, wherein said registered fingerprint sample is associated with at least one of: personal information, credit card information, debit card information, savings account information, membership information, PayPal account information, Western Union Account information, electronic bill payment information, automatic bill payment information and loyalty point information.
- [c15] The smartcard transaction system of claim 14, wherein

different registered fingerprint samples are associated with a different one of: personal information, credit card information, debit card information, savings account information, membership information, PayPal account information, Western Union Account information, electronic bill payment information, automatic bill payment information and loyalty point information.

- [c16] The smartcard transaction system of claim 14, wherein a fingerprint sample is primarily associated with first user information, wherein said first information comprises at least one of personal information, credit card information, debit card information, savings account information, membership information, PayPal account information, Western Union Account information, electronic bill payment information, automatic bill payment information and loyalty point information, and wherein a fingerprint sample is secondarily associated with second user information, wherein said second information comprises at least one of personal information, credit card information, debit card information, savings account information, membership information, PayPal account information, Western Union Account information, electronic bill payment information, automatic bill payment information and loyalty point information, and wherein said second user information is different than said first user

information.

- [c17] The smartcard transaction system of claim 1, wherein said smartcard transaction system is configured to begin authentication upon verification of said proffered fingerprint sample.
- [c18] The smartcard transaction system of claim 1, wherein said smartcard is configured to deactivate upon rejection of said proffered fingerprint sample.
- [c19] The smartcard transaction system of claim 1, wherein said sensor is configured to provide a notification upon detection of a sample.
- [c20] The smartcard transaction system of claim 1, wherein said device configured to verify is configured to facilitate at least one of access, activation of a device, a financial transaction, and a non-financial transaction.
- [c21] The smartcard transaction system of claim 1, wherein said device configured to verify is configured to facilitate the use of at least one secondary security procedure.
- [c22] A method for facilitating biometric security in a smart-card transaction system comprising: proffering a fingerprint to a fingerprint sensor communicating with said system to initiate verification of a fingerprint sample for

facilitating authorization of a transaction.

- [c23] The method for of claim 22, further comprising registering at least one fingerprint sample with an authorized sample receiver.
- [c24] The method of claim 23, wherein said step of registering further includes at least one of: contacting said authorized sample receiver, proffering a fingerprint to said authorized sample receiver, processing said fingerprint to obtain a fingerprint sample, associating said fingerprint sample with user information, verifying said fingerprint sample, and storing said fingerprint sample upon verification.
- [c25] The method of claim 22, wherein said step of proffering includes proffering a fingerprint to at least one of an optical and capacitance scanner.
- [c26] The method of claim 22, wherein said step of proffering further includes proffering a fingerprint to a fingerprint sensor communicating with said system to initiate at least one of: storing, comparing, and verifying said fingerprint sample.
- [c27] The method of claim 22, wherein said step of proffering a fingerprint to a fingerprint sensor communicating with said system to initiate verification further includes pro-

cessing database information, wherein said database information is contained in at least one of a smartcard, smartcard reader, sensor, remote server, merchant server and smartcard system.

- [c28] The method of claim 22, wherein said step of proffering a fingerprint to a fingerprint sensor communicating with said system to initiate verification further includes comparing a proffered fingerprint sample with a stored fingerprint sample.
- [c29] The method of claim 28, wherein said step of comparing includes comparing a proffered fingerprint sample to a stored fingerprint sample by using at least one of a third-party security vendor device and local CPU.
- [c30] The method of claim 28, wherein said step of comparing includes comparing fingerprint minutia.
- [c31] The method of claim 30, wherein said step of comparing minutia comprises storing, processing and comparing at least one of ridge endings, bifurcation, lakes, enclosures, short ridges, dots, spurs, crossovers, pore size, pore location, loops, whorls, and arches.
- [c32] The method of claim 22, wherein said step of proffering a fingerprint to a fingerprint sensor communicating with said system further comprises using said fingerprint

sensor to detect at least one of blood flow, correctly aligned ridges, pupil dilation, pressure, motion, and body heat.

[c33] The method of claim 22, wherein said step of proffering a fingerprint to a fingerprint sensor communicating with said system to initiate verification further includes at least one of detecting, processing and storing at least one second proffered fingerprint sample.

[c34] The method of claim 22, wherein said step of proffering a fingerprint to a fingerprint sensor communicating with said system to initiate verification further includes the use of at least one secondary security procedure.

[c35] A method for facilitating biometric security in a smart-card transaction system comprising:  
detecting a proffered fingerprint at a sensor communicating with said system to obtain a proffered fingerprint sample;  
verifying the proffered fingerprint sample; and  
authorizing a transaction to proceed upon verification of the proffered fingerprint sample.

[c36] The method of claim 35, wherein said step of detecting further includes detecting a proffered fingerprint at a sensor configured to communicate with said system via



at least one of a smartcard, reader, and network.

- [c37] The method of claim 35, wherein said step of detecting a proffered fingerprint includes detecting a proffered fingerprint at one of a capacitance and optical scanner.
- [c38] The method of claim 35, wherein said step of detecting includes at least one of: detecting, storing, and processing a proffered fingerprint sample.
- [c39] The method of claim 35, wherein said step of detecting further includes receiving a finite number of proffered fingerprint samples during a transaction.
- [c40] The method of claim 35, wherein said step of detecting further includes logging each proffered fingerprint sample.
- [c41] The method of claim 35, wherein said step of detecting further includes at least one of detection, processing and storing at least one second proffered fingerprint sample.
- [c42] The method of claim 35, wherein said step of detecting further includes using said fingerprint sensor to detect at least one of blood flow, correctly aligned ridges, pupil dilation, pressure, motion, and body heat.
- [c43] The method of claim 35, wherein said step of verifying includes comparing a proffered fingerprint sample with a

stored fingerprint sample.

[c44] The method of claim 43, wherein said step of comparing a proffered fingerprint sample with a stored fingerprint sample comprises storing, processing and comparing at least one fingerprint minutia.

[c45] The method of claim 43, wherein comparing a proffered fingerprint sample with a stored fingerprint sample includes comparing a proffered fingerprint sample with a biometric sample of at least one of a criminal, a terrorist, and a cardmember.

[c46] The method of claim 35, wherein said step of verifying includes verifying a proffered fingerprint sample using information contained on at least one of a local database, a remote database, and a third-party controlled database.

[c47] The method of claim 35, wherein said step of verifying includes verifying a proffered fingerprint sample using one of a local CPU and a third-party security vendor.